Recommendation 4-3R3

UTILIZATION OF THE 2 GHz BANDS FOR SPACE OPERATION

The SFCG,

CONSIDERING

a) that the frequency bands 2025-2110 and 2200-2290 MHz are shared co-equally by the Space Research, Space Operation, and Earth Exploration Satellite services;

b) that bands allocated to the Space Operation service may be used for space tracking, space telemetry, and space telecommand (TTC) by other space services;

c) that the definition of the Space Operation service (S1.23) postulates that these TTC activities by other space services normally be carried out in their service bands;

d) that the bands 2025-2110 and 2200-2290 MHz, which are already now densely occupied, are of prime importance for space science missions of SFCG agencies and will remain so for many years to come as no comparable alternative frequency allocations are available;

RECOMMENDS

1. that geostationary space systems of space services other than the space science services which are designed to operate in mission bands other than 2025 - 2110 and 2200 - 2290 MHz, but which utilize TTC systems within these bands, shall limit the use of such TTC systems to a single frequency pair per satellite and to launch, orbit insertion and emergency operations.

2. that TTC systems for geostationary satellites of space services other than the space science services should be designed in accordance with the general characteristics as contained in Table 1 below.

3. that non-geostationary satellites of services other than the space science services avoid using these bands for TTC

TABLE I.

Typical System Parameters for Space Operations of Geostationary Satellites at 2 GHz

MODE	SYSTEM PARAMETERS	
Reception at earth stations	Telemetry bandwidth	100 kHz
	Tracking bandwidth	400 kHz
	G/T earth station	20 dB/K
Transmissions from earth stations	Telecommand bandwidth	100 kHz
	Tracking bandwidth	400 kHz
	EIRP, earth station	65 dBW